



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	
KIM, Jae-Hong et al.)	Group Art Unit:
Application No.: 10/551,820)	Examiner:
Filed: September 30, 2005)	Confirmation No.:
For: COMPOSITION FOR)	
PREVENTING OR TREATING)	
ALLERGIC DISEASE USING)	
BLACK RICE EXTRACT AND ITS)	
THERAPEUTIC USE)	

DECLARATION OF DR. KIM, Jae Hong

Commissioner for Patents
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Sir:

1. I, Dr. KIM, Jae Hong, declare the following:
2. I am a citizen of the Republic of Korea, and have the following mailing address: Baekmaameul Apt., 211-102, Madoo 1-dong, Ilsan-gu, Goyang-si, Gyeonggi-do 411-708, Republic of Korea.
3. I graduated from University of Medicine and Dentistry of New Jersey with a Ph.D. degree in 1991;
4. I am a professor in the Department of Life Science, College of Life Science of Korea University;
5. I have read and am familiar with the above-identified United States patent application filed September 30, 2005 and I am submitting this Declaration in support of that application;
6. I have performed and/or supervised the experiments reported below:

Object

The present inventors have made studies to develop a therapeutic agent for treating bronchial asthma effectively by inhibiting inflammation due to eosinophiles, which is one of late responses. As a result, they confirmed that black rice extract, among many other Chinese medicines and natural substances, can effectively inhibit bronchial asthma, one of the representative allergic diseases.

It is an object of this invention to provide a method for preventing or treating allergic diseases using black rice extract.

It is also an object of this invention to provide a novel therapeutic use of black rice extract.

Method

Effect of black rice extract on inhibition of eosinophile infiltration of the lung

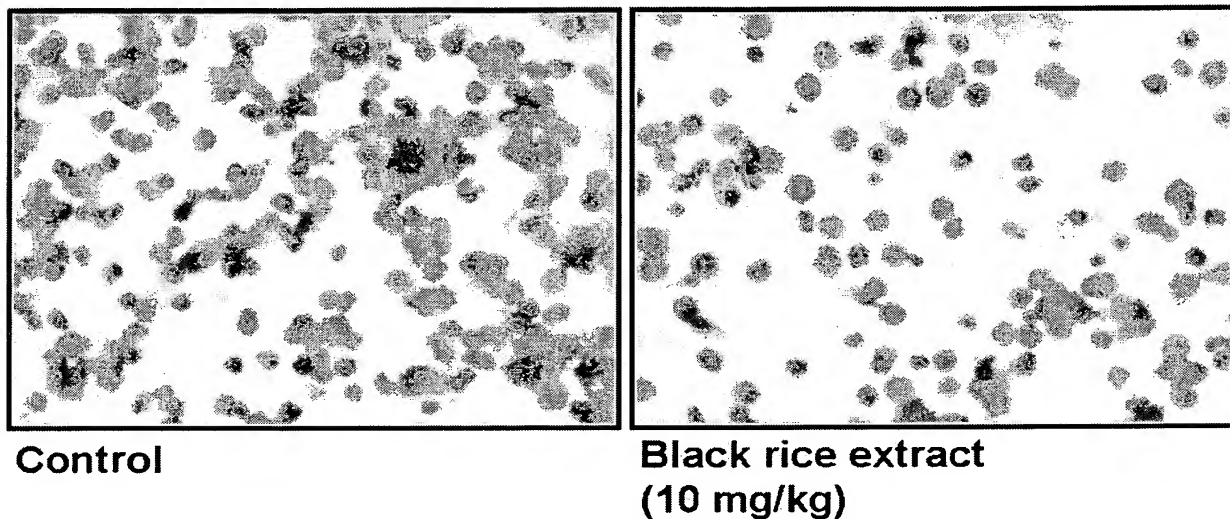
Mice with asthma were induced by sensitizing with 10% ovalbumin solution as the same method described in the Example 2 of this invention and divided into 2 groups; one was used as a negative control, and the other was used as a experimental group. The mouse of experimental group was treated with 50~200 ug of the black rice extract. The extract was administered by interperitoneal injection and the injection was performed twice on the 24th and 25th day from the ovalbumin sensitization.

On the 2nd day from the treatment, the mice were sacrificed using ether. Then, a microtube was connected to trachea. PBS(Phosphate-buffered saline, 0.8 ml) was injected and recovered through the microtube, which was repeated twice, resulting in the obtainment of bronchoalveolar lavage fluid (BALF). The fluid was centrifuged to separate cells in airway lumen and various proteins secreted from the cells and lung. The separated cells were fixed on a slide glass using cytospin and stained with Diff-Quick staining solution.

Results

As shown in the figure 1, the eosinophiles of the mouse which was treated with the black rice extract decreased in numbers.

Fig 1. Inhibition by black rice extract of eosinophil infiltration of the lung



Control : only OVA-induced asthmatic mouse
Black rice extract: ip injection of 50 - 200 mg/mice

7. The results detailed above demonstrate that the black rice extract according to the present invention can be used to effectively accumulation of eosinophiles in airway;

8. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: January 31th, 2008

By: Jae Hong Kim
KIM, Jae-Hong